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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/692,404

10/22/2003

Jeffrey D. Earls

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8505

30078

7590

05/04/2007

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EXAMINER

NGUYEN, THUAN T

ART UNIT

PAPER NUMBER

2618

MAIL DATE

DELIVERY MODE

05/04/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/692,404

Applicant(s)

EARLS ET AL.

Examiner

THUAN T. NGUYEN

Art Unit

2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 14-15 is/are rejected.
- 7) ☒ Claim(s) 6-13 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed on 01/26/2007 have been fully considered but they are not persuasive.

Applicants argue that Miller does not teach means for generating a baseband signal under control of a controller, and points to Fig. 1; however, Fig. 1 simply refers to a conventional receiver when a baseband is provided before the baseband processing. In Miller's, as shown in Fig. 3B later, signals are correlated and under the control of radio controller 9, the baseband is generated (col. 15/lines 1-17 as the baseband data stream may or may not output directly to the user). For the test signal issue, Von der Embse teaches this feature, not Miller's. Applicants' argument on this matter is invalid. Therefore, the examiner stands with the teaching of Miller and Von der Embse as disclosed in the previous office action and discussed in this final office action.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-5 and 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller et al (U.S. Patent 6,834,073 B1) in view of Von der Embse (US Patent 4,689,806).

Regarding claim 1, Miller discloses a tracking generator for an RF measurement instrument having a controller and a receiver (Fig. 3A (1)) comprising means for generating a baseband signal under control of the controller (refer to Fig. 1 and col. 3/lines 37-51 for a conventional receiver as a baseband signal is generated); means for modulating the baseband signal with a modulation oscillator frequency to produce a modulation signal (modulated oscillation signal at 114 is mixing with incoming RF signals); and means for mixing the modulation signal with a local oscillator frequency from the receiver to produce a test signal having an output frequency that matches a measurement frequency for the receiver (col. 9/lines 34-63 for the synchronization process at the waveform correlator 5 with a plurality of pulse sequence for the determination the receiver is synchronized with the incoming signal).

Miller does not clearly show "the test signal having an output frequency that matches a measurement frequency for the receiver" after the process under control of a controller, the baseband signal is modulated and the modulation signal is mixing with a LO signal; however, in a same field of environment, Von der Embse teaches a receiver with quickly acquire and track a signal to demodulate data carried by the signal that provides RF measurements including modulating the baseband signals and provides the test signal using sequential probability radio test (SPRT) (refer to col. 1/line 40 to col. 2/line 12; and Figs. 12a-b & col. 29/line 9-col. 30/line 15 for receiver mode control with the radio signal test). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Miller's system

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with Von der Embse's teaching technique in using a SPRT test for quickly acquire and track a signal to demodulate data carried by the signal.

As for claim 2, this feature is met as Miller teaches to provide a frequency offset for the output frequency (col. 12/lines 11-27).

As for claim 3, this feature is met as Miller teaches the frequency offset as noted above is for a USB receiver including baseband processing (refer to col. 22/see claim 3 and 9).

As for claim 4, this feature is inherently suggested by Miller as Miller teaches the A/D converter is having sampling rates using the Nyquist rate.

As for claim 5, Miller teaches this feature as for the conventional receiver, an AGC includes LO and LO is being adjusted (col. 2/line 58-col. 3/line 16) prior to input into the mixing means (Fig. 1/item 112 for the mixer).

As for claims 14-15, these claims are rejected for the reasons given in the scope of claims 1-2 as disclosed above.

Allowable Subject Matter

4. Claims 6-13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. The following is a statement of reasons for the indication of allowable subject matter:

For claim 6, Miller does not disclose a tracking generator as cited in claim 1 & 2 AND further including "wherein the offsetting means comprises means for controlling a modulation oscillator frequency for the modulating means to produce an offset in the modulation signal."

Other claims are allowable based on the dependence on claim 6.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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7. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to the New Central Fax number:

(571) 273-8300, (for Technology Center 2600 only)

Hand deliveries must be made to Customer Service Window,

Randolph Building, 401 Dulany Street, Alexandria, VA 22314.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tony Thuan Nguyen whose telephone number is (571) 272-7895.

The examiner can normally be reached on Monday-Friday from 9:30 AM to 7:00 PM.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Tony T. Nguyen
Primary Examiner
Art Unit 2618

TTN
April 25, 2007